

U.S.S.N. 09/891,014

LISTING OF THE CLAIMS

Claims 1-20 (cancelled)

- 21.(New) An adhesive coated article comprising
- a substrate having a first major surface and a second major surface; and
- a layer of microsphere adhesive on at least a portion of the first major surface of the substrate, the microsphere adhesive comprising
- a) a plurality of polymeric, elastomeric microspheres wherein the microspheres are the reaction product of
 - 1) polymerizable, starting materials comprising at least one C₄-C₁₄ alkyl (meth)acrylate ester monomer and at least one (meth)acrylamide comonomer,
 - 2) initiator for the polymerizable monomer starting materials present in an amount from 0.1 to approximately 2 parts by weight per 100 parts by weight of the polymerizable monomer starting materials, and
 - 3) chain transfer agent in an amount sufficient to produce from 30 % to 98 % of a solvent-soluble portion in the microspheres,
 - b) surfactant in an amount of no greater than about 5 parts by weight per 100 parts by weight of the microspheres, and
 - c) optionally, a polymeric stabilizer in an amount from about 0.1 to about 3 parts by weight per 100 parts by weight of the microspheres.

22.(New) The adhesive coated article of claim 21, wherein said microspheres comprises polymeric, solid, elastomeric microspheres.

23.(New) The adhesive coated article of claim 21, further comprising at least one vinyl-unsaturated additive having both an ionic moiety and a hydrophobic moiety and containing at least 5 but not more than 40 carbon atoms in an amount of from about 0.1 to 3 parts by weight of the microspheres.

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24.(New) The adhesive coated article according to claim 22 further comprising at least one vinyl-unsaturated additive having both an ionic moiety and a hydrophobic moiety and containing at least 5 but not more than 40 carbon atoms in an amount of from about 0.1 to 3 parts by weight of the microspheres.

25.(New) The adhesive coated article of claim 21, wherein said adhesive composition exhibits a 90° peel value, as measured on clay coated paper, of from 20 grams/inch to 250 grams/inch.

26.(New) The adhesive coated article of claim 21, wherein said adhesive composition further comprises from 1 % by weight to 10 % by weight polyacrylamide.

is this part of the reaction product

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27.(New) The adhesive coated article of claim 21, wherein said microsphere adhesive comprises composite pressure sensitive adhesive microspheres comprising a mixture of two or more water insoluble polymers that are present wholly within the boundaries of the microspheres, wherein at least one water insoluble polymer is a solute polymer and at least one water insoluble polymer is a matrix polymer.

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28.(New) The adhesive coated article of claim 21, wherein said microsphere adhesive comprises composite pressure sensitive adhesive microspheres comprising a mixture of two or more water insoluble polymers that are present wholly within the boundaries of the microspheres, wherein at least one water insoluble polymer is a solute polymer and at least one water insoluble polymer is a matrix polymer and wherein the solute polymer is a homopolymer or copolymer prepared from (meth)acrylamide monomers.

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29.(New) The adhesive coated article of claim 21 further comprising a low adhesion backsize coating on at least a portion of the second major surface, such that the low adhesion backsize coating is positioned directly under the microsphere adhesive layer on the first major surface, such that when at least two adhesive coated articles are stacked upon each other, the microsphere adhesive layer of a first adhesive coated article

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is contiguously positioned on top of the low adhesion backsize coating of a second adhesive coated article.

30.(New) An adhesive coated article comprising
a substrate having a first major surface and a second major surface; and
a layer of microsphere adhesive on at least a portion of the first major
surface of the substrate, the microsphere adhesive comprising

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a) a plurality of hollow, polymeric, acrylate, inherently tacky,
infusible, solvent dispersible, pressure sensitive microspheres comprising
at least about 85 parts by weight alkyl acrylate ester or
alkyl methacrylate ester, and
up to about 15 parts by weight (meth)acrylamide,
a majority of said microspheres containing at least one
interior void having a diameter at least about 10 % of the diameter
of the hollow microspheres,

said microspheres comprising the reaction product of

1) polymerizable starting materials comprising at least
one C₄-C₁₄ alkyl (meth)acrylate ester monomer and at least one
(meth)acrylamide comonomer,

2) initiator for the polymerizable monomer starting
materials present in amounts ranging from 0.1 to approximately 2
parts by weight per 100 parts by weight of the polymerizable
monomer starting materials, and

3) chain transfer agent,

b) surfactant in an amount of no greater than about 5 parts by
weight per 100 parts by weight of the microspheres, and

c) optionally, a polymeric stabilizer in an amount of from
about 0.1 to about 3 parts by weight per 100 parts by weight of the
microspheres.

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31. (New) The adhesive coated article of claim 30, wherein said microspheres are solvent insoluble.

32. (New) The adhesive coated article of claim 30, wherein said chain transfer agent is present in an amount sufficient to produce from 30 % to 98 % of a solvent-soluble portion in the microspheres.

33. (New) An adhesive coated article comprising a substrate with a first and second major surface and a layer of microsphere adhesive on at least a portion of the first major surface of the substrate, wherein the microsphere adhesive comprises

a) a plurality of hollow, polymeric, acrylate, inherently tacky, infusible, solvent-insoluble, solvent dispersible, pressure sensitive microspheres comprising at least about 85 parts by weight of at least one alkyl acrylate ester or alkyl methacrylate ester and up to 15 parts by weight at least one polar comonomer, a majority of the microspheres containing at least one interior void having a diameter at least 10 % of the diameter of the hollow microspheres, and

b) polyacrylamide,

wherein said adhesive composition exhibits a 90° peel value, as measured on clay coated paper, of from 20 grams/inch to 250 grams/inch.

34. (New) An adhesive coated article comprising
a substrate having a first major surface and a second major surface; and
a layer of microsphere adhesive on at least a portion of the first major surface of the substrate, the microsphere adhesive comprising

a) a plurality of polymeric, elastomeric microspheres wherein the microspheres comprise the reaction product of

1) polymerizable, starting materials comprising at least one C₄-C₁₄ alkyl (meth)acrylate ester monomer and at least one (meth)acrylamide comonomer, and

2) initiator for the polymerizable monomer starting materials present in an amount from 0.1 to approximately 2 parts

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by weight per 100 parts by weight of the polymerizable monomer starting materials,

b) surfactant in an amount of no greater than about 5 parts by weight per 100 parts by weight of the microspheres,

c) at least one vinyl-unsaturated additive having both an ionic moiety and a hydrophobic moiety and containing at least 5 but not more than 40 carbon atoms in an amount of from about 0.1 parts by weight to 3 parts by weight of the microspheres,

d) polyacrylamide; and

e) optionally, a polymeric stabilizer in an amount of from about 0.1 to about 3 parts by weight per 100 parts by weight of the microspheres.

35.(New) The adhesive of claim 34, wherein said microspheres further comprise chain transfer agent in an amount sufficient to produce from 30 % to 98 % of a solvent-soluble portion in the microspheres.